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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,215	07/07/2003	Francesco Grilli	030337	3124
23596 7590 09/02/2008 QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121				
EXAMINER DADA, BEEMNET W				
ART UNIT 2135		PAPER NUMBER		
NOTIFICATION DATE 09/02/2008		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/617,215

Applicant(s)

GRILLI ET AL.

Examiner

BEEMNET W. DADA

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/23/08 has been entered. Claims 1, 12, 22, 31, 41 and 52 have been amended. Claims 1, 12, 22, 31, 41 and 52 have been amended. Claims 1-61 are pending.

Response to Arguments

Applicant's arguments with respect to 35 USC 102(e) rejections of claims 1-61 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments with respect to 35 USC 101 rejections of claims 22-40 have been considered but they are not persuasive.

Examiner would point out that claims 22-40 are directed to an apparatus/system claims that can be implemented through software [see specification paragraphs 1029 and 1031] and therefore, the recited claims are directed to functional descriptive material, and therefore, the claimed subject matter does not fall within the statutory classes listed in 35 USC 101.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 22-40 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 22 and 31 are directed to a secure registration system. The examiner respectfully asserts that the claimed subject matter does not fall within the statutory classes listed in 35 USC 101. Claims 22 and 31 recite module/apparatus that is defined in the specification to be implemented through software [see specification paragraphs 1029 and 1031] and therefore, the recited claims are directed to functional descriptive material. Generally functional descriptive material (i.e., software) is statutory when it is stored on a tangible computer readable storage medium. Claims 22 and 31 are rejected as being directed to a functional descriptive material. Claims 23-29 and 32-40 depend from claims 22 and 31, and therefore are rejected under the same rationale.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Faccin et al. US 6,879,690 B2 (hereinafter Faccin) in view of Shibata US 2004/0019787 A1.

As per claims 1, 22 and 41, Faccin teaches a method of obtaining secure registration by a memory module (UICC) in a multicast-broadcast-multimedia system (MBMS), the method comprising:

receiving a random number (RANDTSK, column 9, lines 63-67 and column 10, lines 11-14);

generating a radio access network key (RAK) (i.e., generating new TSK value) as a function of the random number (i.e., RANDTSK) and a key selected from the group consisting of a public land mobile network key (PK) and a broadcast access key (BAK) (i.e., long-term key) [column 10, lines 45-47 and figure 5];

generating a temporary registration key (RGK) (i.e., AUTHU) as a function of the RAK [column 10, lines 63 -67], and

authenticating at least one registration message in the MBMS based on the RGK [column 10, line 64-67 and column 8, lines 29-47]

Faccin as indicated above teaches generating a temporary registration key (RGK) as a function of the RAK (access network key). Faccin is silent on generating temporary registration key (RGK) as a function of the RAK (access network key) and a user identification number. However, in the same field of endeavor, Shibata teaches generating a temporary key (session key) as a function of an RAK (i.e., access key) and a user identification number (i.e., user ID) [see paragraphs 0062 and 0081-0083]. It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to employ the teachings of Shibata within the system of Faccin in order to enhance the security of the system.

As per claims 12, 31 and 52, Faccin teaches a method of obtaining secure registration by a mobile station in a multicast-broadcast-multimedia system (MBMS), the method comprising:

receiving a random number from a radio access network (i.e., AAAv receiving RANDTSK, column 10, lines 11-13);

transmitting the random number to a memory module (UICC) (i.e., transmitting RANDTSK to mobile node/device, column 10, lines 11-14);

receiving from the UICC a temporary registration key (RGK) based on the random number [column 10, lines 45-60], and

authentication at least one registration message in the MBMS based on the RGK [column 10, line 64-67 and column 8, lines 29-47].

Faccin as indicated above teaches receiving a temporary registration key (RGK) based on a random number. Faccin is silent on receiving a temporary registration key (RGK) based on the random number and a user identification number. However, in the same field of endeavor, Shibata teaches receiving a temporary key (session key) as a function of an RAK (i.e., access key) and a user identification number (i.e., user ID) [see paragraphs 0062 and 0081-0083]. It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to employ the teachings of Shibata within the system of Faccin in order to enhance the security of the system.

As per claims 2, 23 and 42, Faccin further teaches the method further comprising transmitting the RGK to a mobile telephone [column 10, lines 60-67].

As per claims 3-5, 24-26 and 43-45, Faccin further teaches the method further comprising receiving a provisioning message from a broadcast-multicast service center [figure 4 and 5].

As per claims 6, 7, 27, 28, 46 and 47, Faccin further teaches the method wherein the RGK is a function of the RAK, a service identification number and a user identification number [column 10, lines 60-67 and figures 4 & 5].

As per claims 8, 18, 37, 48 and 58, Faccin further teaches the method wherein the UICC comprises a subscriber identity module (SIM) in a GSM system [figures 1 and 2].

As per claims 9, 19, 38, 49 and 59, Faccin further teaches the method wherein the UICC comprises a RUIM in CDMA system [figures 1 and 2].

As per claims 10, 11, 20, 21, 29, 30, 39, 40, 50, 51, 60 and 61, Faccin further teaches the method wherein the PK/BAK is provisioned by using a public key [column 10, lines 25-67].

As per claims 13, 32 and 53, Faccin further teaches the method wherein the RGK is a function of a radio access network key (RAK) which is a function of the random number and a key selected from the group consisting of a public land mobile network key (PK) and a broadcast access key (BAK) [column 10, lines 45-47 and figure 5].

As per claims 14, 15, 33, 34, 54 and 55, Faccin further teaches the method wherein the PK is extracted from a provisioning message received from a broadcast-multicast service center [figure 4 and 5].

As per claims 16, 17, 35, 36, 56 and 57, Faccin further teaches the method wherein the RGK is a function of the RAK, a service identification number and a user identification number [column 10, lines 60-67 and figures 4 & 5].

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BEEMNET W. DADA whose telephone number is (571)272-3847. The examiner can normally be reached on Monday - Friday (9:00 am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Beemnet W Dada/

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August 27, 2008